

AVAGO TECHNOLOGIES, LTD.  
P.O. Box 1920  
Denver, Colorado 80201-1920

Patent Application  
Docket No. 10010363-1



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.:	10/007,494	§	
		§	Group Art Unit: 2874
Appellants:	Kirk Giboney et al.	§	
		§	Examiner: Petkovsek, Daniel J.
Filed:	November 13, 2001	§	
		§	
For: OPTICAL DEVICE,		§	
ENCLOSURE AND METHOD OF		§	
FABRICATING		§	

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P.O. Box 1450  
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By: Michele Morrow  
Michele Morrow

REPLY BRIEF (37 C.F.R. 41.41)

A Reply Brief was originally filed on October 12, 2004, responding to the Examiner's Answer dated August 12, 2004, in the above-referenced application. A replacement Examiner's Answer was, however, filed on November 29, 2005, pursuant to the Board's ORDER RETURNING UNDOCKETED APPEAL TO EXAMINER dated October 4, 2005. The Reply Brief originally filed on October 12, 2004, is, accordingly, resubmitted herein to formally respond to the replacement Examiner's Answer filed on November 29, 2005.

The fees required under § 41.20(B)(2), and any required petition for extension of time for filing this brief and fees therefore, are dealt with in the accompanying TRANSMITTAL OF REPLY BRIEF.

**RESPONSE TO EXAMINER'S ANSWER**

**Grouping of Claims**

In the "Grouping of Claims" section on page 3 of the Examiner's Answer, the Examiner states "The rejection of claims 1-15, 19, 20, 22 and 25-31 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together *and reasons in support thereof*. See 37 CFR 1.192(c)(7)." Appellants believe that this statement is incorrect.

Initially, claims 4, 6, 8, 11, 13-15, 19, 20, 22 and 28 are no longer on appeal inasmuch as claims 13-15, 19, 20 and 22 have now been allowed, and claims 4, 6, 8, 11 and 28 have been indicated as containing allowable subject matter. Accordingly, only claims 1-3, 5, 7, 9, 10, 12, 25-27 and 29-31 remain under appeal.

Furthermore, Appellants respectfully disagree with the Examiner's assertion that claims 1-3, 5, 7, 9, 10, 12, 25-27 and 29-31 remaining on appeal stand or fall together. Instead, as stated in the Appeal Brief, Appellants believe that claims 1-3, 5, 7, 10 and 12 stand or fall together; that claim 9 stands on its own, and that claims 25-27 and 29-31 stand or fall together.

In the Examiner's Answer, the Examiner contends that Appellants have not presented reasons to support the grouping of claims. Appellants respectfully disagree. Claims 1-3, 5, 7, 10 and 12 were discussed in detail on pages 6-9 of the Appeal Brief, claim 9 was separately discussed on page 11 of the Appeal Brief, and claims 25-27 and 29-31 were separately discussed on pages 12 and 13 of the Appeal Brief. In the discussion of each claim group, reasons were presented as to why the groups were separately patentable in view of the applied art. The Examiner has presented no substantive reasons as to why the grouping of claims is

incorrect, and Appellants respectfully request that the Board separately consider the patentability of claims 1-3, 5, 7, 10 and 12; claim 9; and claims 25-27 and 29-31 with respect to the applied art.

**Rejection of Claims 1-3, 5, 7, 9, 10, 12, 25-27 and 29-31**

In maintaining the Final Rejection of claims 1-3, 5, 7, 9, 10, 12, 25-27 and 29-31 as being unpatentable over O'Connor et al. in view of Appellants' cited prior art, the Examiner states:

O'Connor et al. '704 does not explicitly teach that the alignment member 28 is formed on the lid portion. The alignment member 28 is formed through the lid 11, aligning the optical device to the optical cable. The claim limitation of having the alignment member being formed on the lid portion does not overcome the prior art reference, since the apparatus functions as a whole, integral apparatus. Claiming separate components that function identically during use as an integral apparatus does not overcome a relevant prior art reference having the same integral functionality (see *In re Larson*, 340 F.2d 965, 144 USPQ 347 (CCPA 1965)). It is an obvious modification to form the alignment members on/through any part of the apparatus, since functionality is the same, aligning the optical device to the optical cable.

Examiner's Answer, pages 4 and 5.

Appellants respectfully disagree. Initially, as pointed out in the Appeal Brief, *In re Larson* is directed to whether it is a patentable distinction if a component is integral or formed of separate elements secured together. In the present invention, on the other hand, alignment members are formed on a separate component than disclosed in O'Connor. In the present invention as recited in claim 1, "at least one alignment member" is "formed on the lid portion" of an enclosure whereas in O'Connor, alignment members are formed on a base portion of an enclosure.

Furthermore, Appellants disagree that the alignment members in O'Connor and in the present invention have the same functionality as asserted by the Examiner. The Examiner states that the alignment members in both O'Connor and in the present invention function to align an optical device to a connector of an optical cable. However, the alignment members of the present invention provide significant advantages over the alignment members in O'Connor. For example, as pointed out in the specification of the present application and in the Appeal Brief, in the present invention, by forming the at least one alignment member on the lid portion of an enclosure, the enclosure can be manufactured by procedures that reduce the required number of high precision manufacturing steps, and, in addition, the enclosure becomes better suited for manufacture by a batch process. In particular, in the present invention, the alignment members are coupled only to the lid portion which provides the sole mechanical attachment and support for the alignment members. This is important because the fabricating of two separate parts with planar mating surfaces facilitates the simple alignment and assembly of multiple enclosures simultaneously in a batch processing operation.

O'Connor does not disclose batch assembly of any kind. In O'Connor, the alignment pins 28 pass through transparent substrate 11 and into a pin holder/base 29. In O'Connor, substantially the whole structure of the pins extend through the transparent substrate. The large size of the transparent substrate in O'Connor compared to the face of the pin holder/base 29 would preclude efficient batch assembly.

Another important distinction between the enclosure of the present invention and the enclosure disclosed in O'Connor is the mounting of the optical electrical device. As shown in Fig. 2A of the present application, optical electrical device 217 of the enclosure of the present invention is mounted to or formed in base portion 212. On the other hand, as shown in Fig. 1

of O'Connor, optical electrical device 18 is mounted to transparent substrate 11. The mounting configuration in O'Connor has serious consequences for the heat dissipation of the enclosure in O'Connor. The present invention offers a superior thermal path not recognized in O'Connor.

For the above reasons, as well as for the reasons set forth in detail in the Appeal Brief, claims 1-3, 5, 7, 9, 10, 12, 25-27 and 29-31 are not obvious over O'Connor in view of Appellants' admitted prior art, and it is respectfully requested that the Board so find.

**Rejection of claims 25-27 and 29-31**

Claims 25-27 and 29-31 are directed to a structure that is divisible into two or more optical communication devices, each optical communication device having at least one optical electrical device, and each adapted to join with a connector of an optical cable. In the Examiner's Answer, the Examiner states:

Appellant states that the O'Connor et al reference nowhere discloses or suggests a structure that is divisible into two or more optical communication devices, each of which has at least one optical electrical device. The Examiner disagrees with this statement, since O'Connor et al. clearly shows an optical device that can (at least initially "divisible") in separate parts as is shown in Figure 1. Each part has optical electrical device components, either the optical cable 54, or the optical device 18."

Examiner's Answer, page 8.

Appellants respectfully disagree with the Examiner's position. Even if the structure shown in Fig. 1 of O'Connor is divisible into two or more structures, O'Connor does not disclose two or more structures that are adapted to join with a connector of an optical cable. Furthermore, O'Connor nowhere discloses a first substrate having at least two optical electrical devices thereon, and a second substrate affixed to the first substrate with the at least

two optical electrical devices positioned therebetween as recited in claim 25. If the Examiner considers optical cable 54 in O'Connor as being one of the optical electrical devices, certainly O'Connor doesn't disclose that the optical cable is on a first substrate with optical electrical device 18, and that a second substrate is affixed to the first substrate with the optical cable positioned therebetween.

Claims 25-27 and 29-31 are directed to a structure that is divisible into two or more optical communications devices, and relates to manufacturing enclosures by a batch process. As discussed above, O'Connor nowhere discusses manufacturing enclosures in a batch process, and does not disclose the present invention as recited in claims 25-27 and 29-31, either alone or in combination with Appellant's admitted prior art.

Claims 25-27 and 29-31 are, accordingly, not obvious over O'Connor in view of Appellants' admitted prior, and should be allowable in their present form.

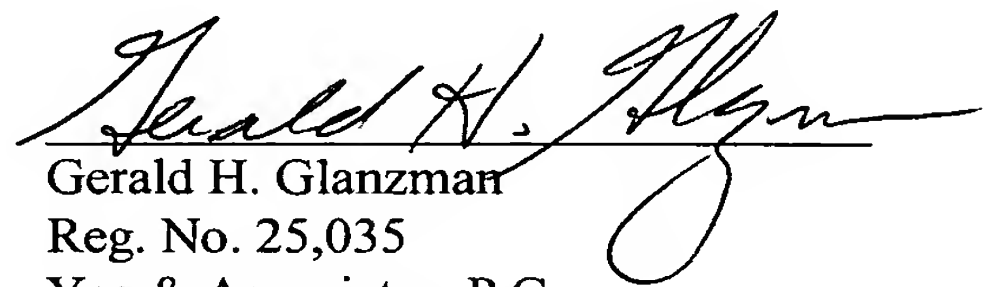
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**CONCLUSION**

For all the above reasons, as well as for the reasons discussed in the Appeal Brief, claims 1-3, 5, 7, 9, 10, 12, 25-27 and 29-31 are not unpatentable over O'Connor in view of Appellants' admitted prior art, and it is respectfully requested that the Examiner's Final Rejection be reversed.

Respectfully submitted,

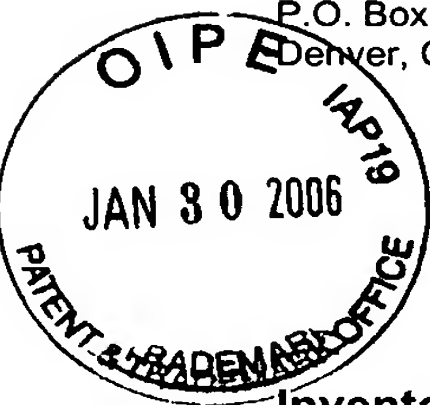


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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Kirk Giboney et al.

Serial No.: 10/007,494

Examiner: Petkovsek, Daniel J.

Filing Date: November 13, 2001

Group Art Unit: 2874

Title: Optical Device, Enclosure and Method of Fabricating

COMMISSIONER FOR PATENTS  
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TRANSMITTAL OF REPLY BRIEF

Sir:

Transmitted herewith is the Reply Brief with respect to the Examiner's Answer mailed on November 29, 2005. This Reply Brief is being filed pursuant to 37 CFR 1.193(b) within two months of the date of the Examiner's Answer.

(Note: Extensions of time are not allowed under 37 CFR 1.136(a))

(Note: Failure to file a Reply Brief will result in dismissal of the Appeal as to the claims made subject to an expressly stated new grounds of rejection.)

No fee is required for filing of this Reply Brief.

If any fees are required please charge Deposit Account 50-3718.

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